

Background: Pharmacists face challenges that might compromise their job satisfaction. Currently, there is a lack of information regarding the level of pharmacists' job satisfaction in the Arab world. This study objective was to explore in-depth the pharmacists' satisfaction level and the challenges they encounter in their career path in the Arab world. The results of the present study will allow policymakers to take corrective actions to improve pharmacist's satisfaction based on the information gathered.

Methods: This qualitative study was part of a large quantitative study. Data were collected using a self-administered electronic questionnaire posted on pharmacists' social media (Facebook/Twitter/LinkedIn/WhatsApp) networks in 18 Arab countries. The thematic analysis followed was an inductive analytic methodology using a constructivist paradigm. The electronic survey was administered through Qualtrics Survey Software (Qualtrics, Inc, Provo, UT). The survey link was open from March 22, 2021 to May 1, 2021. The survey was reposted daily to increase response rates. Pharmacists were free to add any additional comments about job satisfaction and job dissatisfaction at an optional open-ended question.

Results: The results relied on the comments of 110 pharmacists. The survey data demonstrated several reasons underlying job dissatisfaction among Arab pharmacists. However, underestimation of the pharmacists' role, low salaries, lack of motivation and excessive workload were reported as major contributors to job dissatisfaction. On the other hand, professional commitment and the culture of the work setting were the major contributors to job satisfaction.

Conclusions: Government officials and pharmacy profession stakeholders in the Arab countries should consider the outcomes of this study to address the underlying causes of job dissatisfaction among Arab pharmacists. While the results of our study reveal the need to improve the work environment for pharmacists, the authors also recommend careful attention to pharmacy education to better prepare pharmacy graduates for the global dynamic changes in the pharmacy practice.

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Abstract 162

Pharmacist action at the pharmacy checkpoint before safe drug dispensation to older people

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Background: To contribute to rational use of medicines, pharmacists assess prescribed drugs at a "pharmacy checkpoint" before dispensing. The objective was to investigate pharmacists' action at the pharmacy checkpoint, with focus on older people's medication.

Methods: The medication lists of 292 older patients (median age: 74.5 years (range: 65–99), 59% female) were independently assessed by two experienced licenced pharmacists, regarding potential barriers for dispensation. For each patient, the medication list was categorised in three mutually exclusive groups: (i) the drugs can be dispensed without pharmacist action, (ii) the drugs can probably be dispensed after verification with the customer, or (iii) the prescribing physician should probably be contacted for queries or verification before dispensation. In cases where both pharmacists concordantly determined that physician contact was required before safe dispensation, underlying reasons and pharmacotherapeutic suggestions were analysed.

Results: The first pharmacist assessed that 117 (40%) medication lists could be dispensed without further action, 115 (39%) required verification with the customer, and 60 (21%) required contact with the prescribing physician. The corresponding numbers for the second pharmacist was 158 (54%), 81 (28%), and 53 (18%). The pharmacists made concordant assessments in 192 (66%) cases (kappa: 0.46). In 37 (13%) cases, both pharmacists determined that physician contact was probably required before safe dispensation. In these cases, both pharmacists described that the barrier for dispensation was ≥ 1 potential drug interaction (n=35, 95%), dosing issues (n=9, 24%), and/or that it had to be ascertained that laboratory tests were checked (n=5, 14%). Frequent

pharmacotherapeutic suggestions to the prescribing physician were to replace one drug with another (n=14, 38%) or to add a gastroprotective agent (n=8, 22%).

Conclusions: About half of older patients' medication lists were assessed as requiring pharmacist action before the drugs could be safely dispensed. The moderate inter-rater agreement illustrates the complexity facing pharmacists at the pharmacy checkpoint.

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Abstract 163

Expanding pharmacist role in the management of opioid use disorder through extended-release buprenorphine administration, a qualitative analysis

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Background: Canadian pharmacists are injection-trained and starting to provide subcutaneous (SC) administration of extended-release (ER) injectable buprenorphine for patients with opioid use disorder (OUD). This is a novel service and a step towards building collaborative practice in opioid stewardship. This project aims to explore the perception and experience of pharmacists and prescribers involved in pharmacist-led ER buprenorphine administration for patients with OUD within community pharmacies, and identify perceived barriers to the provision of the service.

Methods: This project undertook a qualitative research method of study using one-on-one semi-structured interviews. Purposive sampling was obtained through snowballing informal contacts and corporate contacts within Ontario, Canada. Thematic analysis was undertaken using NVivo 14.

Results: We interviewed 9 pharmacists and 3 prescribers (2 nurse practitioners and 1 physician). Nearly half of the participants identified as male (n=5) and practicing in an urban setting (n=7). Interviewed pharmacists had on average 1 year of experience delivering BUP injections and 8 years of pharmacy practice experience. Qualitative data analysis resulted in 4 themes. In the first theme, pharmacists took on various roles in providing care for patients with OUD. Aside from giving injections, they coordinated patient care, managed drug safety, and provided individual consultations. Prescribers in particular, acknowledged pharmacist capability in medication reconciliation. The second theme noted perceived benefits to patients, pharmacists, prescribers, and the health care system. The third theme documented barriers for buprenorphine injection administration inherent in patients, the neighbourhood, for pharmacists and pharmacies, and in existing procedures and regulations. Lastly, the fourth theme provided recommendations for improvement, for pharmacies and pharmacists, and for existing procedures and regulations.

Conclusions: Pharmacist administration of ER buprenorphine can support collaborative practice and enhance care for patients with OUD. Efforts to minimize or remove barriers in practice will further strengthen pharmacist ability to provide this novel service.

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Abstract 176

Alberta pharmacists' practices and barriers in providing comprehensive COPD care

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Background: Community pharmacists can support COPD patient care by clinical assessment, optimization of pharmacotherapy, and supporting self-management in the community. We aimed to explore whether Alberta pharmacists provide comprehensive COPD care (e.g., optimization of therapy), what factors are

associated with provision of comprehensive COPD care and what perceived barriers to comprehensive care are.

Methods: An online survey was disseminated to 5,805 pharmacists registered with the Alberta College of Pharmacy. Survey questions collected demographic information, current practices and barriers to provision of comprehensive COPD care. Data analysis was performed using descriptive statistics and multivariable logistic regression.

Results: We received 456 responses, with 341 being fully completed (denominators differ based on item response). The following comprehensive services were provided: assessment of appropriateness of maintenance therapy based on guidelines (46.3%), initiation of maintenance therapy (28.9%), referral for optimization/step-up therapy (79.9%), and initiation of prednisone/antibiotic in exacerbation (21.6% and 25.3%). The model showed statistically significant differences in: referral for step-up therapy - those with no additional education in COPD had higher odds and those with authority to prescribe had lower odds; initiation of maintenance therapy - casual pharmacists had lower odds; initiation of exacerbation therapy - casual pharmacists had lower odds and those with certification (eg CRE) had higher odds. The most impactful barriers were workload, resources, or time pressures (56%), lack of training and knowledge in COPD management (31.6%) and belief that there are other healthcare providers better positioned to assess and adjust therapy (27.6%).

Conclusions: Less than half of respondents assess appropriateness of COPD therapy, which is an opportunity for pharmacist care as substantial number of patients are not optimally managed. Pharmacists can be more proactive in caring for patients with COPD as well as in ensuring timely exacerbation management. More training and implementation strategies supporting pharmacists at the workplace are needed to improve COPD management.

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Abstract 179

Availability of Clinical Services in Community Pharmacies: A Survey of Utah Pharmacists

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Background: The majority of Americans live within 10 miles of a community pharmacy, making pharmacies one of the most accessible avenues to receive healthcare. In addition to medication dispensing, community pharmacies have slowly expanded to providing services. The objective of this study was to examine the availability of clinical services in community pharmacies across the state of Utah (USA) as well as assess the barriers to offering these services.

Methods: We conducted a survey using an online platform (Qualtrics, Provo, UT) of all registered and active pharmacists practicing in community pharmacies in the state of Utah. The questionnaire gathered demographic data as well as information on the availability and barriers to pharmacy services. We specifically examined naloxone dispensing, emergency and pharmacist-prescribed hormonal contraception, smoking cessation counseling, and immunizations. Descriptive statistics were used to characterize the study population and their responses. Data were analyzed in SAS v9.4 (SAS Institute, Cary, NC). This study was reviewed and deemed exempt by the University of Utah IRB.

Results: Of the 5510 emails sent, we received 570 responses, 205 (3.7%) of which fully qualified and completed the questionnaire. Of the 205, 84 (41%) identified as female or a woman, 114 (56%) were between the ages of 31 and 50, 168 (82%) identified as white, 68 (33%) reported living in a rural area, and 50 (24%) reported their highest level of training was a BS Pharm with the rest reporting a PharmD. Of the respondents, 177 (86%) offered naloxone, 150 (73%) offered emergency contraception, 90 (44%) offered pharmacist-prescribed hormonal contraception, 94 (46%) offered smoking cessation counseling, and 188 (88%) offered immunizations. The most frequently cited barriers to offering services were time constraints and insufficient/lack of reimbursement.

Conclusions: The availability of clinical services at Utah pharmacies varies considerably. To expand these services' availability, workflow and reimbursement policy changes are necessary.

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Abstract 181

Exploring methods for Identification of Medication-Related Hospital Admission/Readmission: A systematic review

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Background: Medication related hospital admissions and readmissions are a common occurrence. Pharmacist interventions can be targeted towards these admissions to reduce further readmissions, however there is no clear consensus on how to identify a medication related admission/readmission. This systematic review aims to summarise published evidence on the different tools employed to identify medication related admissions/readmissions.

Methods: Scopus, PubMed and Embase Ovid database searches were conducted to collect articles for this systematic review. Full text articles in English were included if they were published in the past ten years and focused on the development of a tool for identification of medication related hospital admission/readmission. Articles were excluded if they were systematic reviews, conference papers, editorials or commentary, or described the use of an existing tool or consensus.

Results: Twenty-two studies were identified that described unique methods for identifying medication-related admissions. These methods included trigger tools and indicators (n=8), questionnaires (n=4) and author-selected ICD-9 or ICD-10 codes (n=10). QUDAS-2 was employed to evaluate the risk of bias in tools that described both an index assessment using the tool and compared that to a reference standard, primarily expert opinion or consensus (n=4).

Conclusions: Of these four tools, three were considered suitable for use by clinical pharmacists in identifying medication related admissions/readmissions. The fourth tool was a computerised algorithm which we do not have access to use for replication. Future research could be focused on validating a tool for use in the general population as all tools were validated in either a geriatric or paediatric population.

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Abstract 186

Coordinating pharmacists in Flemish nursing homes: a new and promising role

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Background: So far, coordinating and advising pharmacists (CAPs) have not been officially introduced in Flemish nursing homes (NHs), although NHs perceive a high need for support in all medication-related processes. To break the vicious circle of waiting for the government, which in turn awaits evidence of effectiveness on CAPs' role, we started a pilot project in which we trained pharmacists to be a CAP, and we further explored their potential role in the NH.

Methods: The pilot project was set up in 2022-2023 with 10 pharmacists and NHs. Participants followed an educational program developed by KU Leuven. To evaluate the training and explore the activities, focus groups were organized with participating CAPs and NH staff. CAPs also listed tasks and learning activities. All data were analyzed inductively.

Results: The training program consisted of three components: 1) e-learning, 2) 10-days internship including three assignments (i.e. quality assessment of the medicines' pathway, medication reviews using the RESPECT brochure, and dialogues with NH residents (NHR) about the medication-processes) and 3) monthly round tables with CAPs and training coordinators. Findings showed that the e-learning was well received, but needed further adaptations. The internship was defined as an essential component; round tables were considered as